

1 **"VALVE CAGE INSERT"**

2 **ABSTRACT OF THE DISCLOSURE**

3 The insert for a ball and seat valve comprises a tubular cylindrical body
4 formed by vertically spaced apart top and bottom rings joined by helically
5 inclined and circumferentially spaced apart ribs defining side openings. The
6 ribs support inwardly arching ball guide flanges which thin in cross-section as
7 they extend inwardly and upwardly from the ribs. The inner upper ends of the
8 flanges are connected with and tied together by an elongate, upwardly
9 extending reinforcing member protruding above the top ring. The
10 reinforcement member provides structural strength to the thinned flanges.
11 Thinning of the flanges leads to increasing the open area of the top outlets,
12 thereby promoting the volumetric fluid capacity of the valve.